GPS Bluetooth Receiver

IGO-08B

User's Guide

Version 1.0

FCC GUIDELINES

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Use only shielded cables to connect I/O devices to this equipment.

FCC Warning:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Information to user:
The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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Introduction

IGO-08B is a GPS receiver with Bluetooth interface adopts advanced ATMEL ANTARIS 4 Super Sense GPS IC, and built-in active antenna for high sensitivity to tracking signal, there's also an external MMCX aerial terminal for users adding higher MMCX antenna.

Easy operation with speed limit setting. The bright red LED lighten to remind driver while speeding could improve driver's safety effectively.

The IGO-08B is well suited to system integrations including PDA, Smart phone, Table PC and Notebook PC with Bluetooth devices. It satisfies a wide variety of applications that are purposes in automotive, and outdoor recreation navigation systems.

Features

- Adopts advanced satellite located core ATMEL ANTARIS 4 Super Sense.
- Quick location and 16 satellites tracing ability.
- Built in WAAS/EGNOS demodulator, no need extra hardware to receive WAAS/EGNOS signal.
- Built in MMCX connector.
- Battery capacity display
- Support NMEA0183 version 2.2 for exporting data.

- Easy wireless Bluetooth transmission is available in 10 meters distance.
- Flexible design, easy connection with auto-navigation, motorcade control, AVL, personal navigation, tracking system and map service industry.

Package content

Please make sure of your package includes the following items, If any item is damaged or missing, please contact your dealer at once.

1. Bluetooth GPS receiver IGO-08B x 1
2. Lithium rechargeable battery x 1
3. USB cable x 1
4. Slipperiless pad x 1
5. Car charger x 1
6. Travel charger x 1
7. Disc with user’s guide x 1

Hardware Description

There are four LEDs to show different status:

①Bluetooth（Blue）

Fast blink: Indicates this Bluethooth GPS is waiting for pairing or master device' connection.
Slow blink: Indicates this Bluetooth GPS is connecting successfully.

② Power LED（Red）

Lighten: Charging
Darken: Charging complete

③ GPS （Green）

Lighten: GPS power on
Darken: GPS power off

④ Circle LED (Red)

Speeding display & Battery capacity display

⑤ Charge socket

⑥ Battery bolt

⑦ Switch 1 (◀◀)

Short press: GPS Heading function On/Off

⑧ Switch 2 (▶▶)

Long press: Speeding setting On/Off
Short press: Speed limit adjusting key
Press right key ▶▶ to increase
Press left key ◀◀ to decrease

⑨ Power switch

Long press: Power On/ Off
Short press: Power capacity display on circle LED

⑩ MMCX Antenna Socket

Technology Specification

Satellite receiving	Receiving and tracking 16 satellites at the same time Receiving frequency: 1575.42MHz Receiving code: L1, C/A code
Accuracy (Precision)	General positioning: 2.5m CEP DGPS/SBAS: 2.0m CEP
Acquisition	Cold start: 34 sec (Average) Warm start: 33 sec (Average) Hot start: 1 sec (Min)
Sensitivity:	-158dBm (Super sense mode)
Dynamics:	Altitude: max. 18,000m (Max.) Velocity: max. 500m/sec (Max.) Acceleration. Max. +/-4g (Max.)
DGPS	WASS/EGNOS
Navigation update rate:	Once per second
Baud Rate:	9600bps
GPS protocol	NMEA 0183 V2.2, GGA, GSV, GSA, RMC
Bluetooth spec.	Blue Tooth V2.0

Power supply:	DC 5.0V ±5%
Power consumption	70mA (Average)
Operating Temp.	-10°C~ +60°C
Storage Temp.	-20°C~ +85°C
Humidity	5%~95%
Size:	64(L) x 41 (W) x 19 (H)mm
Weight	54g (include battery)
Battery:	Nokia 6100 compatible (spec. 3.7V / 700mA)
Operating Hour	Up to 10 hours at battery full charge condition
Output connect	Mini-USB (TTL Level)

Operation

1. How to use battery

1-1 Charging battery more than 8 hours

Before first time using IGO-08B's battery, user has to charge the battery more than 8 hours. Connect travel charger or car charger with this device DC5V charge socket. The Power LED（Red）lighten indicates charging, the red LED goes off indicates finish charging.

1-2. Battery capacity check

Press the Power Switch for 1 second when the IGO-08B is power on; the circle LED shows battery capacity. Each LED equals 12.5% power. Eight LED lighten shows full battery. We strongly recommend user to charge while under three LEDs.

2. Turn on IGO-08B and wait for Bluetooth device' connection.

LED will show below status:

- Bluetooth LED（Blue）will blink quickly if it is used first time or link switch have been activated by users.（waiting for pairing or connecting with other Bluetooth device）
- Bluetooth LED（Blue）will blink slowly if it is connecting successfully.
- The GPS LED（Green）will blink slowly two second later

after positioning successfully.

3. How to active Bluetooth enabled device

There are many Bluetooth enable devices like PDA or Bluetooth dangle on the market, which direct connect with IGO-08B. Each one may have different Bluetooth setup procedure. Please refer to their user manual for detail instruction.

Activate Bluetooth search and connect function of Bluetooth PDA or dangle. A virtual comport will be assigned after Bluetooth connection is successful.

Every time you want to connect IGO-08B with a new Master Bluetooth device, which never pair before, user has to push pairing switch of your master bluetooth device first. (Bluetooth LED will blink quickly) Second, enable Master Bluetooth device' *search Bluetooth device function*, master Bluetooth device will take few seconds fo find GPS and ask for keying pass key. After entering valid PASS KEY, connection will be setup. (Please refer to Bluetooth PDA or other master Bluetooth device for details).

The original PASS KEY (PIN CODE) for IGO-08B is "0000".

4. Running GPS navigation software

Verify and select Bluetooth virtual comport with default baud rate for navigation software, then start to run navigation software.
Note: Make sure the comport number of PC is the same as Bluetooth virtual comport number.

5. Speed limit setting

Initial speeding alarm setting was off. Press SW2 ➢➢ KEY 2 seconds for speed setting on/off, upward round LED sets default 60KM, each LED equals 10KM.

Press 1 second of SW1◅◅ KEY and SW2➢➢ KEY for speed adjustment. Press SW1◅◅ to decrease speed; press SW2 ➢➢ to increase speed. The maximum speed is 130KM. (full round LED lighten equals 130KM).

After speed limit setting, the round LED turns off for power saving. When the driving speed overtakes the setting, the LED blinkis red to remind user for speeding.

6. GPS Dynamic electronic Compass setting

Press SW1 ◅◅ KEY 1 second to start GPS compass, any red LED lighten indicates the North.

On GPS compass mode, the speed must be over 10km and GPS compass display location correct.

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